138482-2

IN THE SPECIFICATION:

Please substitute the following paragraph for the paragraph beginning on line 10 of page 8 and ending on line 2 of page 9 (as amended in the prior response).

The process of continuous aqueous-emulsion oxidation of cumene is preferably conducted in a cascade of flow-through reactors by bubbling air through a water-cumene emulsion. The process is conducted at a temperature of 100-120° C in a first oxidation reactor of the series of oxidation reactors with a gradual decrease to 80-90° C in a last oxidation reactor of the series of oxidation reactors and at a gage pressure of up to 5 atm. For example, tThe process is conducted at a temperature of 120° C. in the first reactor, lowering it to 80° C. in the last reactor, and at a gage pressure of 5 atm, in the presence of a mixture consisting of a 0.007-0.5% aqueous solution of ammonia and a 0.001-0.5 mass % solution of an ammonium salt (e.g., ammonium bicarbonate, ammonium carbonate, ammonium carbamate, or a mixture thereof). The ammonia: ammonium salt mass ratio is (1:100): (100:1), preferably (1:10): (10:1). The oxidative feedstock is fed into the bottom part of each reactor while the aqueous phase is fed into the top part of each reactor. The organic layer of the reaction mass gravity overflows into a vessel, from which it is periodically discharged. The aqueous phase is periodically discharged from the bottom of the reactor and flows through valves into a vessel. The gaseous phase is partially condensed in a cooler, passes an activated-coal filter, where partial sorption of cumene takes place, and then goes, through control valves, into an oxygen analyzer and rheometer. The discharge rates of the liquid phases are controlled by pumps. The reactor temperature is set by a thermostat (oil is used as a heat-carrying agent) and measured by a thermocouple.

PAGE 3/7 * RCVD AT 3/16/2005 9:39:44 AM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/26 * DNIS:2730639 * CSID:8602860115 * DURATION (mm-ss):01-52